

Hormone deprivation therapy for prostate cancer may raise diabetes risk

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Men with prostate cancer are at higher risk of developing diabetes or diabetes risk factors if they receive androgen deprivation therapy (ADT) to block the production or action of male hormones that can fuel the growth of this cancer.

"These patients may benefit from counseling, screening and closer monitoring for the development of these complications," said the study's lead author, Maria Luisa Cecilia Rivera-Arkoncel, MD, a fellow at the Philippine General Hospital in Manila.

This study adds to the scientific evidence that ADT may increase the chance of diabetes. Sometimes called medical or surgical castration, ADT is a common treatment when [prostate cancer](#) has spread outside the prostate. It can be permanent by surgically removing both testicles (bilateral orchiectomy), or, more often, temporary by using medications, such as gonadotropin-releasing hormone (GnRH) agonists, to prevent the testes from making testosterone.

In their study, Rivera-Arkoncel and her colleagues compared 38 men with prostate cancer who received ADT and 36 men with less advanced prostate cancer who did not receive hormonal therapy. Men in the ADT group either underwent bilateral orchiectomy at least six months earlier or received six or more months of treatment with injections of GnRH agonists. Both groups received treatment at the Philippine General Hospital from 2004 to 2010. Although the average age of the two groups was not the same at the beginning of the study, the groups were similar

in terms of other diabetes risk factors, Rivera-Arkoncel said.

Based on a review of medical records, the researchers identified patients with [Type 2 diabetes](#) or the metabolic syndrome. This syndrome is a cluster of [metabolic risk factors](#) that increase the chance of developing diabetes, heart disease and stroke. The criteria used for diagnosis include a large waistline plus two of the following: low HDL ("good") cholesterol, high [triglycerides](#) (fats in the blood), [high blood pressure](#) and [high blood sugar](#).

Men in the ADT group had a twofold increased probability of having diabetes after ADT, compared with the non-ADT group, Rivera-Arkoncel reported. According to the data, the prevalence of diabetes was 42 percent in the ADT group and 19 percent in the other group. In addition, the group receiving ADT had a higher prevalence of the [metabolic syndrome](#) than the non-ADT group did: 37 percent versus 28 percent, respectively.

"An increased risk of diabetes with ADT has not previously been demonstrated in the Filipino population, which already has a high prevalence of diabetes," she said.

She cautioned, however, that their cross sectional analytical study suggests, but cannot prove, that ADT is the cause of the increased prevalence of diabetes in men who received this hormonal therapy.

Provided by The Endocrine Society

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